Fatal External Bleeding from Self-severed Arterial Dialysis Tube: An Unusual Method of Suicide

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Introduction

- It is well known that certain adults with end-stage renal disease (ESRD) treated by hemodialysis have some degree of depression with an estimated prevalence as high as 20%–25% [1,2].

- A high risk of suicide associated with hemodialysis in patients with ESRD has been observed [3,4].

- Previous studies have also shown that depression is an independent risk factor for mortality in these adults [5,6].

- However, self-severing of temporary hemodialysis catheters in these persons as a suicidal method is rare.
Case Presentation

- A 79-year-old woman was found dead on her bed by her grandson at her house in the evening.

- Her relatives then notified the postmortem inquest authorities to perform a death investigation.

- At the scene, the deceased was found lying dead with her left side on the bed.

- Her clothes, as well as the bed sheets and the mattress, were soaked with a bloody fluid.
- A cut on one end of the temporary hemodialysis catheter that had been secured on the right side of her neck was detected (Fig. 1).
Case Presentation (3)

- No evidence of injury was found.

- The death scene was in readiness and everything in the scene was in its place.

- According to the information from her relatives and a medical record, the deceased lived with her son and his family.

- She had been diagnosed with hypertension, diabetes mellitus, cardiac disease, and chronic kidney disease for several years.
Autopsy

- At autopsy, the deceased was an old woman, 153 cm in height, 50 kg in weight and body mass index of 21.35 kg/cm².

- Mild peripheral cyanosis was detected.

- Three sutured surgical wounds were found on the anteromedial aspect of her right forearm, sized 4 cm long, on the lateral aspect of her right antecubital fossa, sized 1 cm long, and on the anterior aspect of her right antecubital fossa, sized 2 cm long.

- There was a temporary hemodialysis catheter inserted in the right internal jugular vein.
- The brain weighed 1030 g with mild generalized atrophy and pallor of the cerebral and cerebellar surfaces.

- Examination of the chest and abdominal cavities showed no evidence of trauma.

- The heart showed mild degree of cardiomegaly, 400 g in weight, with a mild degree of atherosclerosis in all branches of the coronary artery.

- Each kidney had marked atrophy, 30 g in weight, with generalized, scattered, fine, and coarse granular surfaces; thinned cortices; and pallor.
Autopsy (3)

- Sections of both kidneys stained with hematoxylin–eosin disclosed marked interstitial fibrosis with multiple chronic inflammatory foci, hyalinized glomeruli, and thickened arterioles as well as marked atrophy of the cortices, which were consistent with ESRD.

- Sections of the heart showed patches of myocardial cell death with enlarged nearby myocardial cells and interstitial fibrosis, consistent with hypertrophic cardiomegaly.

- Sections of the brain demonstrated generalized brain atrophy. The microscopic examinations of her remaining internal organs were otherwise unremarkable.

- A panel of toxicological tests was negative.


Thank You